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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,985	02/28/2002	Toru Nagara	450100-03806	1141

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EXAMINER

NGUYEN, TUAN N

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 07/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/084,985

Applicant(s)

NAGARA, TORU

Examiner

Tuan N Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period of Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.


- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/21/03
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 40-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 40-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. In responding to applicant's amendment filed April 21, 2003, claims 1-39 have been cancelled, and claims 40-49 have been added. The abstract section has been amended and claims 1-14 are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 45-49 are rejected under 35 U.S.C 112, second paragraph, as being indefinite, vague, and confusing for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, **for example**.

Claims 45-49 recite, "a method of driving a semiconductor laser, comprising the steps of: **detecting** an operating voltage...; **converting** an input second voltage...; **generating** control signals....; **driving** the semiconductor..." and " **detecting** an emission power...; **generating** a reference power...; **generating** a power control signal..." The claims are vague and indefinite when not written in a means plus step functions. It is not clear what detecting, converting, driving or generating. There is no structure or means in performing the functions which render the claims vague and indefinite. Claims 46-49 are rejected based on the same reasons.

Claim Rejections - 35 USC § 102

4. The following is a quotation of 35 U.S.C. 102(b) which forms the basis for all obviousness rejections set forth in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 40, 43, 44, 45, 48, 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Putt (US 4685097).

With respect to claims 40, 43, 44, 45, 48, 49 Van der Putt ('097) shows in (F 1-3) and discloses in the ABSTRACT, and (Col 2: 43-68; Col 3: 0-35; Col 4-5:0-68) a power control circuit, detecting circuit, converter/ comparator, laser driver circuit (F1: 10, 54, 56, 58, 60, 94) where power control system for a semiconductor in an optical recording system having both read and write capability, where write signal is higher power than read signal, and a light sensing diode used to control or adjusting the read and write current supplied to the laser. There is also a step-up comparator, that is used to determine if the output power from read or write is sufficient (Col 3: 0-15), capable of providing necessary voltage to the operating voltage for output. Since Write power is higher than Read power, it is inherent that as it sum of Read or Write with the Step-up comparator will provide a higher laser driving circuit. Van der Putt ('097) discloses in (Col 2: 40-69), first power supply decided on the operating voltage of read and write, by switch back and forth between Read and Write using diode feedback. Since claims 40, and 45 recite the same or identical elements/limitations it is inherent to use patents ('097) to recite the method of driving a laser light source, product by process.

Claim Rejections - 35 USC § 103

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6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or non-obviousness.

7. Claims 41, 42, 46, 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Putt (US 4685097) in view of Sonnenschein et al (US 4975358). Van der Putt ('097) discloses the above except that the laser light source is a violet short-wave laser beam and first voltage is between 8V-10V. Sonnenschein et al. discloses the use of violet short-wave laser in write, read and erasable in optical data storage (Col 4: 13-18). It would have been obvious to one of ordinary skill in the art to provide Van der Putt (US 4685097) the ultra violet short-wave laser as taught or suggested by Sonnenschein et al (US 4975358) for the benefit of having sharply defined, high resolution images on optical media. It is within one skill in the art to provide the require power supply for the system of intended use, in this case the UV short-wave laser required 8-10V for proper operation.

Response to Argument

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8. Applicant's arguments filed on April 21, 2003 have been fully considered but they are not persuasive.

The applicant asserts - The present invention is relating to converts "an input second voltage into a first voltage greater than the input second voltage", and semiconductor laser diodes that emit "a short wavelength violet laser beam", where "the second voltage is 5V and the first voltage is between 8-10V" so that the 5V input voltage is stepped up to have sufficient power to drive UV short-wave laser.

The examiner disagree in that all electronic circuitry operate base on HI / LOW power signals. Generally, most circuit components operate within 0- 5V, however the system power supply often provide 6-12V to the circuitry and the 5V power is often regulated or control to reduce the amount of power consumption in equipments. Having a 8-10V use to drive the UV short-wave laser is to meet the laser operating requirement, and most system power supply would able to meet the laser requirement as claimed by the applicant.

Conclusion

9. The prior art made of record and relied upon is considered pertinent to applicant's discloses.

Hirikiri et al. (US005237558), Reeley (US005438581A), Doi (US 4747091), Inaba et al. (US005477557A), Hikasa et al. (US005859862A), Kagamibashi et al. (US005508986A), Kawabuchi et al. (US005884122A), disclose laser driver circuit for optical disk record and reproduction.

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10. Applicant's amendment necessitated the new ground(s) of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP 706.07. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Communication Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan N Nguyen whose telephone number is (703) 605-0756. The examiner can normally be reached on M-F: 7:30 - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.


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Tuan N. Nguyen

A handwritten signature in black ink, appearing to read "Tuan Nguyen", with a long, sweeping horizontal stroke extending to the right.